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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,515	04/16/2004	Piotr Solski	18168	1948

26794 7590 07/27/2007
TYCO TECHNOLOGY RESOURCES
4550 NEW LINDEN HILL ROAD, SUITE 140
WILMINGTON, DE 19808-2952

EXAMINER

TRINH, TAN H

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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07/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/826,515

Applicant(s)

SOLSKI ET AL.

Examiner

TAN TRINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 15-19 is/are allowed.
- 6) ☒ Claim(s) 10, 12 and 14 is/are rejected.
- 7) ☒ Claim(s) 11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 12-05-2005, 05-08-2006, 11-16-2006, 02-05-2007, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meadows (U.S. Patent No. 6091966).

Regarding claim 10, Meadows teaches a method for output matching in a multi-band signal processor (130) (see fig. 1 and 3) comprising: receiving input signals (132) having a defined frequency band and generating at least first (1900 MHz) and second output signals (800 MHz) to a load (180) (see fig. 1 and 3, col. 3, lines 56-col. 4, lines 20), with the first output signals (1900 MHz) being of a frequency band that is higher than a frequency band of the second output signals (800 MHz) (see fig. 1, col. 4, lines 17-20); and regulating (130) the first output signals according to the defined frequency band of the input signals (106) (see fig. 1 and 3, col. 3, lines 56-col. 4, lines 20, and col. 4, lines 8-20), with undesired harmonics being suppressed

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from the first output signals when the input signals are of a first frequency band (see fig. 1, col. 4, lines 17-29).

Regarding claim 12, Meadows teaches matching impedances (130) of the first and second output signals separately (see fig. 1, first (134) and second (136) output for 1900MHz and 800 MHz).

Regarding claim 14, Meadows teaches wherein the multi-band signal processor (100) (see fig. 1) comprises an active device (110) transmitting the input signals (132), and wherein the receiving and generating step comprises a multi-band diplexer (170), the method further comprising providing an impedance matching (130 or 140) section between the active device (110) and the multi-band diplexer (170 160) through which the input signals pass (106) (see fig. 1, col. 3, lines 56-col. 4, lines 63).

Allowable Subject Matter

4. Claims 1-9 and 15-19 are allowed.
5. Claims 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for allowance

6. The following is an examiner's statement of reasons for allowance:

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Regarding independent claims 1 and 15 and dependent claim 11, Meadows teaches an apparatus (100) for output impedance matching (130) for a multi-band signal processor (see fig. 1) comprising: a multi-band diplexer (130) adapted for receiving input signals (132) having a defined frequency band and generating at least first and second output signals (1900 MHz and 800 MHz) (see fig. 1 and 3, col. 3, lines 56-col. 4, lines 20), wherein the first output signals are of a frequency band (1900 MHz) that is higher than a frequency band of the second output signals (800 MHz) (see fig. 1 and 3); However, Meadows alone or in combination with other prior art of record, fail to disclose at least one switch through which the first output signals from the multi-band diplexer pass, the switch having "on" and "off" states, the switch being in an "on" state when the input signals are of a first frequency band, for suppressing undesired harmonics, and the switch being in an "off" state when the input signals are of a second frequency band as specified in independent claims 1, 15 and dependent claim 11.

Regarding dependent claim 13, Meadows alone or in combination with other prior art of record, fail to disclose and the step of matching impedances further comprises: providing a first impedance matching section between the multi-band diplexer and the load through which the second output signals pass; and providing a second impedance matching section between the multi-band diplexer and the load through which the first output signals pass as specified in dependent claim 13.

Conclusion

7. **Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314**).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

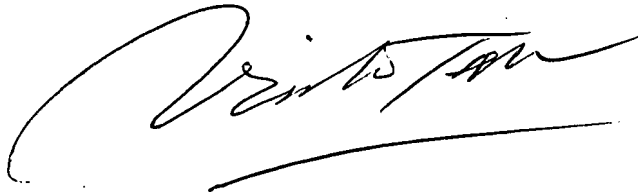
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Division 2618
July 21, 2007

PATENT EXAMINER
TRINH, TAN

A handwritten signature in black ink, appearing to read 'Tan H. Trinh', with a long horizontal flourish extending to the right.